

Mineral Industry Surveys

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PLATINUM-GROUP METALS IN OCTOBER 2004

Global supplies of platinum are expected to increase by 7,200 kilograms (kg) to 200,000 kg in 2004, according to platinum-group metals producer Johnson Matthey plc. Output in South Africa is expected to grow more rapidly, despite temporary disruptions to production, as expansion projects deliver increasing amounts of metal to the market. North American sales of platinum are also likely to increase as output from Canadian producer Inco and Stillwater Mining Company, Columbus, MT, rebound from strike-affected lows in 2003 and the first half of 2004. Johnson Matthey said that shipments of platinum from Russia, however, are expected to decrease as sales fall more closely in line with mine production. Global demand for platinum is expected to rise a little faster in 2005 than in 2004, led by strong demand from the European autocatalyst sector. Automobile industry forecasts suggest that diesel automobiles will account for more than 50% of new car sales in Europe in 2005. At the same time, the use of catalyzed diesel particulate filters will accelerate, and average diesel oxidation catalyst loadings will rise further as a greater number of Euro IV compliant vehicles are produced. (Euro IV standards are the latest European Union emission regulations.)

Global palladium supplies are expected to increase by about 22,000 kg in 2004, driven by sales of the metal from inventory by Stillwater Mining Company and increased mine production in South Africa, Canada, and the United States. The expected growth in purchases of palladium for autocatalyst manufacture

to 114,000 kg in 2004 from 108,000 kg in 2003 will largely be due to a reduction in the amount of metal taken from inventories in the United States. However, the use of palladium in autocatalysts in North America will continue to decline as thrifting programs further reduce the average palladium loading per catalyst. Meanwhile, Johnson Matthey said that auto makers will purchase 22,600 kg of rhodium in 2004, 1,560 kg more than in 2003. The growth will be driven by a combination of less use of metal from stocks by U.S. automobile companies, an increase in average catalyst loading levels in many regions in response to more restrictive emissions requirements, and higher light vehicle production. Most of the growth in purchases of rhodium will take place in the United States as U.S. auto makers are expected to use less rhodium from inventories in 2004 than in 2003 and thus will purchase more of their rhodium requirements on the open market. In addition, average rhodium levels in catalysts are increasing in the United States in response to the introduction of Federal Tier 2 emissions standards. These require cuts in NO_x emissions, and rhodium is the most effective catalyst for the chemical reduction of NO_x to nitrogen (Johnson Matthey plc, 2004).

Reference Cited

Johnson Matthey plc, 2004, Platinum 2004 interim review: London, United Kingdom, Johnson Matthey plc, November 16, p. 2-19.

TABLE 1
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2003:					
Low/date	605.00 April 30	151.00 April 16	NA	NA	NA
High/date	842.00 December 17	273.00 January 23	NA	NA	NA
Average	694.44	203.00	530.28	93.02	35.43
2004:					
August:					
Low/date	827.00/6	214.00/25	1,080.00/2	205.00 ²	62.00 ²
High/date	888.00/16	223.00/20	1,525.00/9 and 10	205.00 ²	65.00 ²
Average	851.91	217.55	1,299.55	205.00	64.45
September:					
Low/date	831.00/9	207.00/8 and 9	1,120.00 ²	200.00 ²	65.00 ²
High/date	877.00/28	227.00/27	1,290.00/29 and 30	205.00 ²	75.00/29 and 30
Average	851.05	213.95	1,198.57	202.62	68.81
October:					
Low/date	824.00/28	214.00/28	1,235.00 ²	195.00 ²	75.00/1
High/date	865.00/1	237.00/8	1,300.00 ²	200.00 ²	82.00 ²
Average	843.76	220.43	1,265.24	196.19	81.29
Year to date:					
Low/date	771.00 May 10	200.00 Jan. 5	500.00 Jan. 5 and 6	87.00 Feb. ²	41.00 Jan. 5 and 6
High/date	940.00 Apr. 19	340.00 Apr. 12	1,525.00 Aug. 9 and 10	230.00 Mar. and Apr. ²	75.00 Sep. and Oct.
Average	847.68	238.64	915.55	185.30	62.00

NA Not available.

¹Quotes from Engelhard Industries.

²Occured multiple days in month listed.

Source: Platts Metals Week.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY¹

(Kilograms metal content, unless otherwise specified)

Period and country	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum waste and scrap		Platinum coins	
	Value		Value		Value		Value		Value		Value	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2003	849	\$18,600	69,700	\$1,480,000	7,210	\$143,000	4,990	\$89,700	5,670	\$37,200	16	\$426
2004:												
July	3	63	4,440	115,000	1,030	24,200	458	11,100	4,100	6,620	(2)	7
August	12	303	4,090	104,000	1,530	41,700	962	24,300	16,400	10,500	1	32
September:												
Australia	--	--	--	--	--	--	--	--	--	--	(2) ³	6
Belgium	--	--	193	5,380	14	393	1	19	--	--	--	--
Brazil	--	--	--	--	--	--	--	--	10 ³	146	--	--
Canada	4	116	--	--	--	--	32	915	17	628	1 ³	21
China	--	--	--	--	--	--	--	--	4	189	--	--
Colombia	--	--	--	--	9	240	--	--	705 ³	60	--	--
Cyprus	--	--	--	--	--	--	--	--	5 ³	28	--	--
Dominican Republic	--	--	--	--	--	--	--	--	1 ³	13	--	--
Germany	--	--	314	8,460	54	1,450	96 ³	1,650	--	--	--	--
Italy	18	495	5	128	108	2,910	--	--	--	--	--	--
Japan	--	--	--	--	21	552	1	25	224	5,820	--	--
Jordan	--	--	--	--	--	--	--	--	7	169	--	--
Korea, Republic of	--	--	--	--	6	148	--	--	--	--	--	--
Mexico	--	--	1	21	--	--	--	--	289	7,680	--	--
Netherlands	--	--	--	--	--	--	1 ³	12	--	--	--	--
Norway	--	--	67	1,840	--	--	--	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	8	170	--	--
Russia	--	--	109	2,990	284	7,750	--	--	--	--	--	--
Singapore	--	--	--	--	--	--	--	--	4	118	--	--
South Africa	--	--	3,120	85,800	--	--	9	258	--	--	--	--
Switzerland	--	--	--	--	2 ³	19	4 ³	57	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	1 ³	2	--	--
United Kingdom	1 ³	19	1,440	38,900	--	--	28	773	63	1,930	--	--
Total	23	630	5,250	144,000	498	13,500	172	3,710	1,340	16,900	1	27
Year to date	203	5,120	54,000	1,430,000	5,180	137,000	3,900	89,900	557,000	93,400	5	125

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY¹

(Kilograms metal content, unless otherwise specified)

Period and country	Unwrought palladium		Palladium, other		Iridium ²		Unwrought osmium		Unwrought ruthenium		Rhodium ³	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2003	83,500	\$518,000	21,000	\$145,000	2,200	\$6,090	53	\$430	15,900	\$16,700	12,000	\$202,000
2004:												
July	6,730	50,300	2,910	19,400	72	510	10	68	1,760	3,150	1,370	39,200
August	7,040	49,400	1,590	10,700	182	1,150	--	--	1,300	2,170	1,670	60,400
September:												
Belgium	913 ⁴	4,290	31	232	--	--	--	--	--	--	116	4,520
Canada	169	1,680	--	--	--	--	--	--	--	--	--	--
France	--	--	3 ⁴	11	--	--	--	--	--	--	--	--
Germany	16	105	205	1,390	--	--	--	--	--	--	122 ⁴	4,530
Italy	12 ⁴	76	20	145	--	--	--	--	--	--	(5)	15
Japan	333 ⁴	984	193 ⁴	280	--	--	--	--	--	--	2 ⁴	158
Norway	285	4,470	--	--	--	--	--	--	--	--	--	--
Russia	1,770	12,000	980	6,600	--	--	--	--	--	--	146	5,370
South Africa	1,270	9,030	--	--	26 ⁴	157	--	--	2,080	4,110	657	24,900
Switzerland	--	--	304	2,130	--	--	--	--	--	--	--	--
United Kingdom	406	3,000	4	32	197	1,380	--	--	--	--	275 ⁴	10,300
Total	5,170	35,600	1,740	10,800	223	1,540	--	--	2,080	4,110	1,320	49,800
Year to date	80,400	617,000	14,200	102,000	2,750	14,900	45	174	13,000	22,500	10,100	274,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought and other forms of iridium.

³Unwrought and other forms of rhodium.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

⁵Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY¹

(Kilograms of metal content, unless otherwise specified)

Period and country	Platinum ²		Platinum waste and scrap		Palladium ²		Iridium, osmium, and ruthenium ^{2,3}		Rhodium ²	
	Value		Value		Value		Value		Value	
	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2003	22,200	\$345,000	23,700	\$377,000	22,300	\$110,000	989	\$7,850	479	\$15,100
2004:										
July	2,200	46,000	2,450	40,300	2,540	9,600	60	558	2	249
August	1,090	21,200	2,110	36,000	1,720	6,360	48	483	(4)	65
September:										
Australia	5 ⁵	71	--	--	26	145	--	--	--	--
Belgium	1	28	--	--	--	--	--	--	--	--
Brazil	13 ⁵	108	--	--	--	--	--	--	--	--
Cambodia	(4)	5	--	--	--	--	--	--	--	--
Canada	69 ⁵	1,520	127	1,210	534 ⁵	3,810	--	--	(4) ⁵	8
Chile	342 ⁵	2,440	--	--	--	--	--	--	--	--
China	1 ⁵	12	--	--	9	46	--	--	--	--
Colombia	--	--	--	--	1 ⁵	3	--	--	--	--
Denmark	--	--	--	--	4	42	--	--	--	--
Finland	2 ⁵	29	--	--	2	16	--	--	--	--
France	7 ⁵	124	--	--	42 ⁵	170	--	--	--	--
Germany	292 ⁵	6,020	175	2,640	228 ⁵	699	--	--	--	--
Hong Kong	40 ⁵	884	--	--	583 ⁵	3,910	--	--	(4) ⁵	44
Hungary	(4)	8	--	--	--	--	--	--	--	--
Iceland	--	--	--	--	(4)	4	--	--	--	--
India	--	--	--	--	1	8	(4) ⁵	11	(4)	43
Ireland	3 ⁵	62	--	--	57 ⁵	123	--	--	--	--
Israel	--	--	--	--	32 ⁵	81	--	--	--	--
Italy	1	26	--	--	9 ⁵	68	--	--	--	--
Japan	246 ⁵	6,480	76	1,390	24 ⁵	102	(4) ⁵	5	--	--
Korea, Republic of	70 ⁵	1,670	--	--	14 ⁵	37	--	--	--	--
Liechtenstein	1 ⁵	13	--	--	(4)	4	--	--	--	--
Malaysia	1 ⁵	8	--	--	2	18	25	145	--	--
Mexico	244 ⁵	4,370	--	--	6	30	(4) ⁵	7	(4) ⁵	41
Netherlands	3 ⁵	47	--	--	4 ⁵	26	--	--	--	--
New Zealand	(4) ⁵	5	--	--	5	35	--	--	--	--
Norway	4 ⁵	66	--	--	10 ⁵	123	--	--	--	--
Philippines	2 ⁵	24	--	--	1	5	--	--	--	--
Poland	--	--	--	--	2	10	--	--	--	--
Singapore	1 ⁵	20	--	--	3	24	4	34	--	--
Slovakia	--	--	--	--	--	--	--	--	(4) ⁵	3
Spain	(4) ⁵	3	--	--	27 ⁵	101	--	--	--	--
Sweden	8	135	--	--	6	45	--	--	--	--
Switzerland	9 ⁵	131	--	--	44 ⁵	334	--	--	--	--
Taiwan	36	898	--	--	164 ⁵	335	--	--	--	--
Thailand	3 ⁵	53	--	--	5	40	--	--	(4)	23
Turkey	(4)	4	--	--	1	5	--	--	--	--
United Arab Emirates	--	--	--	--	--	--	--	--	(4) ⁵	7
United Kingdom	265 ⁵	5,600	1,840	28,400	361 ⁵	1,690	--	--	--	--
Total	1,670	30,900	2,220	33,600	2,210	12,100	30	202	1	168
Year to date	15,100	278,000	21,800	397,000	25,100	115,000	934	7,830	307	7,170

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought and other forms.

³Gross weight.

⁴Less than 1/2 unit.

⁵All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.